

#### CLEANING THE SAMPLING EQUIPMENT

A separate line for lowering the dipper for each well should be provided. The dipper (and funnel, if one is used) should be soaked in distilled water if muddy. Rinse three times with distilled water, then rinse three times with methylene chloride. One liter of methylene chloride should be sufficient for three dipper rinses. Air Dry. Do not rub the equipment with anything.

Provision should be made for proper disposal of the methylene chloride.

## SITE 1

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- 1) Measure depth of water column, calculate water volume.
- 2) Bail until the well has been evacuated three times. Keep a running record of conductivity.
- 3) Take sample of 200 ml, note general appearance.  
Measure for:

\*Specific conductance

\*pH

\*temperature

chloride

copper

iron

Total Organic Carbon (TOC)

Chemical Oxygen Demand (COD)

\*In-field measurement

## SITE 2

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Same procedure as Site 1, but in addition to 200 ml sample, a sample should be obtained for the priority pollutant analysis. This will mean a 1 gallon sample in a prepared glass container plus two 45 ml special vials.

The vials should be filled from the gallon container after it has been filled. The vials should have no air bubbles. The sample bottles should not be pre-rinsed with sample. The solids are to be included. Do Not Filter.

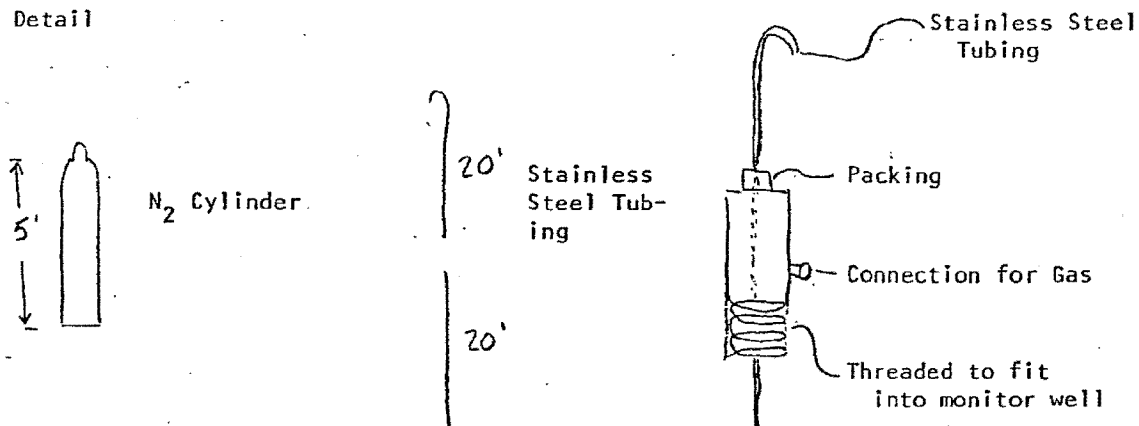
SISTERSVILLE TRIP NOTES 1/10/80

I arrived at the plant at 9 A. M. C. F. Schubert had obtained equipment necessary for blowing a well with nitrogen.

The equipment included:

- A standard five foot nitrogen cylinder
- An oxygen regulator
- Adapter to enable  $O_2$  regulator to fit on  $N_2$  cylinder
- 50' hose to hook gas up to the well
- Two 20' sections stainless steel tubing with fittings, one of which has a hook at the top
- Screw cap to fit on well with opening for stainless steel tubing to slide up and down. The tubing is held in place by tightening a packing.

Detail



Site 1 was the one chosen to try first as the ground was frozen and enabled the truck to get there easier than through mud.

Fred Daily and I began by hand dipping Well #3 while Clem Schubert arranged for the blowing paraphernalia to be transported to the site. The dipper was manufactured by the shop at the Tech Center and taken to Sistersville by myself. It was supposed to open at the bottom, but did not work according to plan. Grit caused the plunger to jam in one position; however, it did hold water. Sometimes it would be leaking as we pulled it out of the well. It held approximately 8 oz. water each dip.

Before dipping, the water level was 7' 8" below the cap.

<u>DIPPER NUMBERS</u>	<u>CONDUCTIVITY</u>
1-5	150 $\mu$ mhos
6-10	160
12	170
13	180
14-22	170

Water level was 13' 3" below the cap when we finished (10 A.M.).

Water level was 11' 4" below the cap at 10:50 A. M.

The total well depth is approximately 15'. The water got muddier as we dipped.

It started out very muddy (like coffee with cream).

We tried to blow Well #2.

The well depth is approximately 35'. Water level before beginning was 24' 4" from the cap.

We placed the tubing in the well such that the bottom of the tubing was one foot from the bottom of the well.

We built up the pressure very slowly. There was a leak in the hose but the pressure held. After reaching 25 psi and holding for about 30 seconds, we got a quick spurt of approximately 1 pint. No other sample came out. We released the pressure, took out the tubing and measured the water level which was 28' 7" below the cap.

The well was very active. We could hear bubbling and hissing. This indicates gas and water were forced back into the strata as we built up pressure.

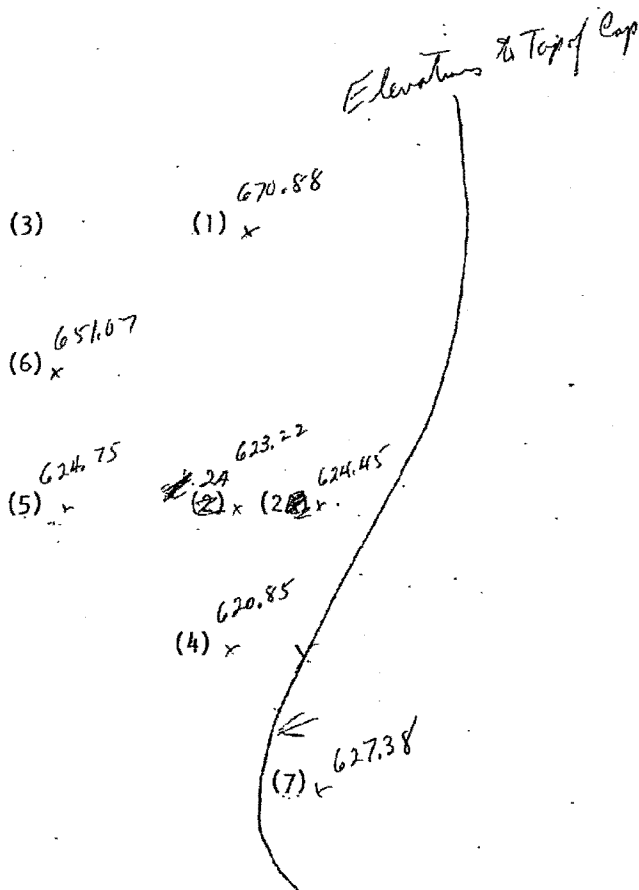
We blew Well #4.

The total well depth is approximately 24 feet. The water level was 10' 4" below the cap. One length of pipe was put down (20'). The water started coming out at 10 psig. About 4/10 gallon was collected. After waiting 7 minutes, the same volume was collected again, indicating fast recharge of the well.

The conductivity was 540  $\mu$  mhos at 11:22.

The water level in #1 (uncased) was 4' from the surface.

Site #2



Well #6

Blew at 50 psi No water Total depth = 44'  
Water level 24' 4" from cap

Well #2

48' deep. Water 23' 1" from cap. Very little  
water (1 pint) Blew it twice at 50 psi

Well #2A

29' 4" deep      Water at 21' 11"      No water  
50 psi twice      Dipped a sample